

1 **MARKED UP CLAIMS**

2 (First Amended) 72. A process for treating wood having wood cellulose
3 having a plurality of hydroxyl groups comprising the steps of:

4 providing a solution consisting essentially of a non-water-based
5 hydrophilic organic solvent and a solute having a functional group comprising an atom
6 selected from the group consisting of trivalent, tetravalent and pentavalent atoms and
7 combinations thereof, wherein said atom is bonded to [a halogen atom or] a functional group
8 selected from the group consisting of a halogen atom hydroxyl group, alkoxy group, phenoxy
9 group, benzyloxy group and an aryloxy group having a polycyclic aromatic ring and
10 combinations thereof,

11 applying said solution to the wood cellulose,
12 covalently reacting said functional groups upon said applying to said
13 wood.

14 (First Amended) 73. The process according to claim [72] 76 further
15 comprising the steps of simultaneous reaction and diffusion of the monomers in the wood.

16 (First Amended) 90. The process of claim 85 wherein the catalyst is from the
17 group consisting of hydrochloric acid, meta-phosphoric acid, poly-phosphoric acid, bases
18 from metal alkoxides and Phosphoric acid, and combinations thereof.

19 (First Amended) 97. The process of claim 72 wherein the solute compound
20 comprises functional groups selected from the group consisting of R-Xa-Xb₃, R₃-Xa,Xb, R₂-
21 Xa-Xb₂, R₄-Xa, and XaR₃ and combinations thereof wherein R is the carbon compound, Xa

1 is the trivalent, tetravalent or pentavalent atom and Xb is a halogen or alkoxy or hydroxyl
2 group.

3 (First Amended) 106. A process for treating wood cellulose having a plurality
4 of hydroxyl groups comprising the steps of:

5 providing a solution comprised of a non-water-based hydrophilic
6 organic solvent and a solute having a plurality of monomers comprising an atom selected
7 from the group consisting of tri-valent, tetravalent and pentavalent atoms and
8 combinations thereof, wherein said atom is bonded to a functional group consisting of a
9 halogen atom, [or a functional group selected from the group consisting of] a hydroxyl
10 group, alkoxy group, phenoxy group, benzyloxy group and an aryloxy group having a
11 polycyclic aromatic ring or combinations thereof.

12 applying said solution to the wood cellulose; and simultaneously
13 diffusing said solution within said wood and

14 reacting said solute to form covalent bonds, and

15 forming a matrix structure comprising reacted monomers and wood
16 cellulose.

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